

Amendments To The Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A high strength non-oriented electrical steel sheet characterized by consisting essentially of, by mass %, C: 0.06% or less, Si: ~~3-6~~ 3.1 to 3.5 6.5%, Mn: ~~0.05 to 3.0%~~ 0.5 to 1.2%, P: 0.30% or less, S or Se: 0.040% or less, Al: 0.005% or less, Cu: 0.6 to 8.0%, Cr: 4.5% or less, N: 0.0031 to 0.0301%, and a balance of Fe and unavoidable impurities, said steel sheet having an average crystal grain size of 30 to 300 μm by means of holding the steel sheet in a heat treatment at 800°C to 1100°C for 20 seconds to 5 minutes and containing a metal phase comprised of Cu having a diameter of 0.1 μm or less and a number density of 20/ μm^3 or more in the steel sheet by means of holding the steel sheet in a heat treatment at a temperature range of 300°C to 650°C for 5 seconds or more.

2. (Currently Amended) A high strength non-oriented electrical steel sheet characterized by consisting essentially of, by mass%, C: 0.06% or less, Si: ~~3-6~~ 3.1 to 3.5 6.5%, Mn: ~~0.05 to 3.0%~~ 0.5 to 1.2%, P: 0.30% or less, S or Se: 0.040% or less, Al: 0.005% or less, Cu: 0.6 to 8.0%, Cr: 4.5% or less, N: 0.0031 to 0.0301%, one or more of Nb: 8% or less, Ti: 1.0% or less, B: 0.010% or less, and Ni: 5% or less, and one or more of Bi, Mo, W, Sn, Sb, Mg, Ca, Ce, La, and Co in a total of 0.5% or less, and a balance of Fe and unavoidable impurities, said steel sheet having an average crystal grain size of 30 to 300 μm by means of holding the steel sheet in a heat treatment at 800°C to 1100°C for 20 seconds to 5 minutes and containing a metal phase comprised of Cu having a diameter of 0.1 μm or less and a number density of 20/ μm^3 or more in the steel sheet by means of holding the steel sheet in a heat treatment at a temperature range of 300°C to 650°C for 5 seconds or more.

3-6. (Canceled)

7. (Currently Amended) A high strength non-oriented electrical steel sheet as set forth in ~~any one of claims~~ claim ~~2~~ 1 to 3, characterized in that the steel sheet contains a Nb carbide or nitride.

8-10. (Canceled)

11. (Currently Amended) A processed part of a high strength non-oriented electrical steel sheet as set forth in any one of claims ~~1 to 3~~, 2 and 7, wherein the part is heat treated after processing for a shaping step to form the processed part so that the metal phase comprised mainly of Cu present in the processed part has a number density of $20/\mu\text{m}^3$ or more, wherein the number density of the metal phase is increased by 10-fold or more after the heat treatment, wherein the metal phase has an average size of $0.1\ \mu\text{m}$ or less, wherein the part has an average crystal grain size of 3 to $300\ \mu\text{m}$, and wherein the tensile strength of the part is increased by 30 MPa or more and hardness of the part is increased by 1.1-fold or more after the heat treatment.

12-23. (Canceled)

24. (New) A high strength non-oriented electrical steel sheet characterized by consisting essentially of, by mass %, C: 0.06% or less, Si: 2.5 to 3.5%, Mn: 0.5 to 1.2%, P: 0.30% or less, S or Se: 0.040% or less, Al: 0.005% or less, Cu: 0.6 to 8.0%, Cr: 4.5% or less, N: 0.0031 to 0.0301%, and a balance of Fe and unavoidable impurities, said steel sheet having an average crystal grain size of 30 to $300\ \mu\text{m}$ by means of holding the steel sheet in a heat treatment at 800°C to 1100°C for 20 seconds to 5 minutes and containing a metal phase comprised of Cu having a diameter of $0.1\ \mu\text{m}$ or less and a number density of $20/\mu\text{m}^3$ or more in the steel sheet by means of holding the steel sheet in a heat treatment at a temperature range of 300°C to 650°C for 5 seconds or more.